

# Laucks

## Testing Laboratories, Inc.

940 South Harney St. Seattle, Washington 98108 (206)767-5060



## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124

LABORATORY NO. 1658

DATE: Jan. 10, 1987

PO# M 1499

REPORT ON: LIQUID

### SAMPLE

IDENTIFICATION: Submitted 1/06/87 and identified as shown below:

ID# 3600-M1499

### TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Zinc	0.041
Chromium	0.025
Copper	0.044
Nickel	L/0.01

### Key

L/ indicates "less than"

Respectfully submitted,

Laucks Testing Laboratories, Inc.

*J. M. Owens*  
J. M. Owens

JMO:la j



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AKC-0015627

# Laucks

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## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124

LABORATORY NO. 1657

DATE: Jan. 10, 1987

PO# M 1498

REPORT ON: LIQUID

### SAMPLE

IDENTIFICATION: Submitted 1/06/87 and identified as shown below:

ID# 3200-M1498

### TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Zinc	0.084
Chromium	1.5
Copper	0.43
Nickel	0.81

Respectfully submitted,

Laucks Testing Laboratories, Inc.

*J. M. Owens*  
J. M. Owens

JMO: laj

JAN 12 1987



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AKC-0015628

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## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124

LABORATORY NO. 1659

DATE: Jan. 10, 1987

PO# M 1500

REPORT ON: LIQUID

### SAMPLE

IDENTIFICATION: Submitted 1/06/87 and identified as shown below:

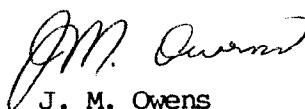
- 1) ID# 3200-M1500
- 2) ID# 3600-M1500

### TESTS PERFORMED AND RESULTS:

	1	2
Specific Gravity at 25 C	1.275	1.140
Total Acidity, calculated as % HNO <sub>3</sub> (methyl orange end point)	9.6	8.3

Respectfully submitted,

Laucks Testing Laboratories, Inc.

  
J. M. Owens

JMO: laj

JAN 12 1987



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AKC-0015629

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## Certificate

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P.O. Box 3546  
Seattle, WA 98124

LABORATORY NO. 1658

DATE: Jan. 10, 1987

PO# M 1499

REPORT ON: LIQUID

### SAMPLE

IDENTIFICATION: Submitted 1/06/87 and identified as shown below:

ID# 3600-M1499

### TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Zinc	0.041
Chromium	0.025
Copper	0.044
Nickel	L/0.01

Key

L/ indicates "less than"

Respectfully submitted,

Laucks Testing Laboratories, Inc.

*J. M. Owens*  
J. M. Owens

JMO:laej

JAN 12 1987



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AKC-0015630

# Laucks

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## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124  
ATTN: Jim Brown

LABORATORY NO. 1930

DATE: Feb. 5, 1987

PO# M1634

REPORT ON: LIQUID

### SAMPLE

IDENTIFICATION: Submitted 1/22/87 and identified as shown below:

- 1) 24 hour Composite Sample at 3200 1/21/87 ID 3200
- 2) Grab Sample at 3200 1/21/87

### TESTS PERFORMED AND RESULTS:

	parts per million (mg/L)	
	1	2
Chromium	9.7	0.63
Copper	1.6	0.24
Nickel	7.5	0.69
Zinc	0.28	0.16

Respectfully submitted,

Laucks Testing Laboratories, Inc.

*J. M. Owens*  
J. M. Owens

JMO:laj



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AKC-0015631

# Laucks

## Testing Laboratories, Inc.

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## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124  
ATTN: Jim Brown

LABORATORY NO. 2149

DATE: Feb. 12, 1987

PO# M1730

REPORT ON: WASTE DISCHARGE

### SAMPLE

IDENTIFICATION: Submitted 2/03/87 and identified as shown below:  
ID#3200

### TESTS PERFORMED AND RESULTS:

	parts per million (mg/L)
Zinc _____	0.35
Chromium _____	2.7
Copper _____	1.1
Nickel _____	2.0

Respectfully submitted,

Laucks Testing Laboratories, Inc.

*J. M. Owens*  
J. M. Owens

JMO:laj



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AKC-0015632

# Laucks

## Testing Laboratories, Inc.

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## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124  
ATTN: Jim Brown

LABORATORY NO. 2145

DATE: Feb. 12, 1987

PO# 1732

REPORT ON: WASTE LIQUID

### SAMPLE

IDENTIFICATION: Submitted 2/03/87 and identified as shown below:

- 1) Nitric Acid Sample ID# 3200-M1732
- 2) Metro Waste Discharge ID# 3600-M1732

### TESTS PERFORMED AND RESULTS:

Specific Gravity at 25 C

1

1.252

Total Acidity, calculated as %  
HNO<sub>3</sub> (methyl orange end point)

8.6

parts per million (mg/L)

2

Chromium  
Copper  
Nickel  
Zinc

L/0.005

0.035

L/0.01

0.039

Key

L/ indicates "less than"

Respectfully submitted,

Laucks Testing Laboratories, Inc.

*J. M. Owens*  
J. M. Owens

JMO: laj



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AKC-0015633